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EXTRACTOR FOR TAKING DISTURBED SAMPLES IN HARD GROUND

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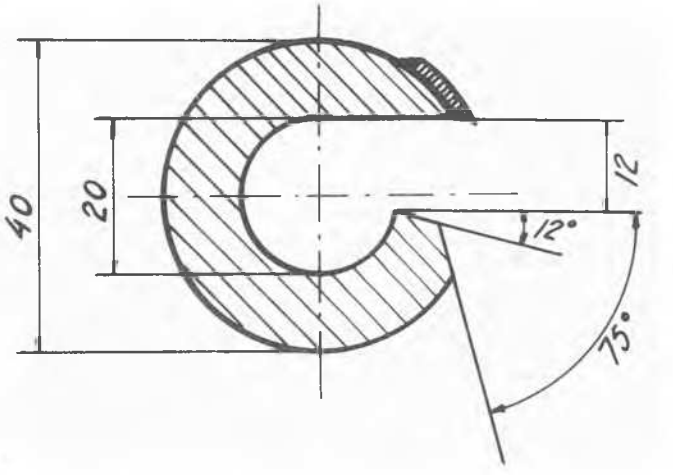
In this paper a new extractor is described, by means of which very long and almost continuous disturbed samples can be taken quickly in hard ground.

The extractor consists of a series of 1 m long tubes, joined by screwed muffs, flush with the tubes, fig. 1. The wall thickness of the tubes is very considerable. Each tube is cut open longitudinally in the form of a slot along the whole length excepting at the ends. A small lip is welded along one side of the slot, fig. 2. In order to permit connecting up of the tubes flats for a spanner are machined on them towards the ends. The muffs are made of special steel in order to be equal in strength with the tubes, in spite of their small wall thickness. The extractor is made with a removable point at its lower end.

Connection between tubes

FIG. 1



Crossection of the extractor.

FIG. 2

When the extractor is driven down, the empty tube space is occupied by a series of rods, screwed together. After the depth required has been reached, the rods are withdrawn, use being made of a jack if necessary. After that the extractor is rotated, so that soil is forced into it by the action of the lips and then it is withdrawn. The soil is removed from the extractor as far as possible in one piece and gives a good picture of the soil strata.

The extractor is intended to be used specially in very hard grounds, containing sand and gravel. It has shown great ability to penetrate such grounds and has been frequently used in order to ascertain whether or not clay is present in a gravel esker.

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